



COMPUTER SCIENCE

in

ARKANSAS



ARKANSAS CS EDUCATION WEEK

CSEdWeek is fast approaching! This is a call to computer science teachers everywhere to promote computer science to their students, parents, and community. We are looking forward to the week of December 6-12 with a kickoff event scheduled for Saturday, December 4.

Every year, the CSforAR team prepares events for CSEdWeek, and this year has been no different. We have been working to provide a wonderful daily lineup of announcements, coding activities, or events for you and your students. You can find all of these announcements as they go live on this page <https://csforar.info/CompSciEdWeek>, as well as announcements from every year since 2017.

Our kickoff event will be a community affair! We would love to see you and your family for our Community Coding Day on Dec. 4, 2021, at the EIT Building of the University of Arkansas at Little Rock. It's always a lot of fun and a great way to connect and learn from the CSforAR team! No prior registration necessary to attend.

Under his leadership, Governor Hutchinson has seen CS grow tremendously in this state, and you can bet that this year will be eventful as this falls during his first year as national chair of the National Governors Association.

What does that mean for you? Consider this fair warning that you will want to stay tuned for what's to come! Bookmark that link above, and keep up with us on our social media pages.

What? You haven't been following us on social media?!

Here are the links:

- **Facebook:** <http://bit.ly/CSFORARFB>
- **Twitter:** <http://bit.ly/CSFORARTW>
- **Instagram:** <http://bit.ly/CSFORARIG>
- **Medium:** <http://bit.ly/CSFORARMMD>
- **LinkedIn:** <http://bit.ly/CSFORARLI>
- **YouTube:** <http://bit.ly/CSFORARYT>

#ARKidsCanCode
#CSforAR

FALL
FALL
FALL
FALL

We love to see what you and your students are doing with CS! Be sure to promote your CSEdWeek events and let the world see why CS is so strong in Arkansas!

#CSTECHFEST WRAP-UP

The October CSTechFest was a big hit with students, parents, teachers, and local faculty. Approximately 150 student participants attended one or both of the sessions, and each received a goodie bag containing UALR gear, pens, CSTechFest badge, stickers, and hand sanitizer.

Some schools brought their students on busses. It was wonderful to see Pine Bluff Lighthouse Academy and Oark students disembarking. Shoutout to Maumelle Charter High School and Earle High School for bringing students!

Two popular events were the VEX Robotics session and Introduction to the Arcade: Chromebook Friendly Game Development. Students were able to test out and play with the Vex robots in the former, and got to build beginner-level video games on school-issued Chromebooks in the latter. Some other activities were geared toward cybersecurity, physical computing, programming, ham radio licensure, and even integrating technology into buildable hand puppets! This is a great way to showcase to students the wide variety and diversity in the realm of computer science. TechTober will return next year! It's never too early to plan on attending and which friend—or two—to bring along.

A special thanks to UALR for hosting this event and providing students with some great experiences such as the Emerging Analytics Center demos.

If you have any questions or want to learn more, reach out to us at csforar@ade.arkansas.gov.



Shenanigans always happens when the #CSforAR team gets together. One of the sessions was titled Snoof Coding where participants made and coded a snoof puppet, while the cybersecurity team session was learning about spoofing code! Can you spot the difference on the themed shirts?



ROBOTICS EVENTS IN THE STATE

Students around the state are gearing up for and competing in various Robotics competitions where their hard work and determination will be put to the test. If you're curious about popular competitions and what they are about (or when/where they may occur), feel free to visit the following links:

Vex (Middle/High School):

<https://www.robotevents.com/robot-competitions/vex-robotics-competition>

Vex IQ (Elementary/Middle):

<https://www.robotevents.com/robot-competitions/vex-iq-challenge>

BEST:

<https://www.bestrobotics.org/site/>

FIRST Lego League (Pre-K - 8th Grade):

<https://www.firstinspires.org/robotics/fll>

FIRST Tech Challenge (7 - 12th Grades):

<https://www.firstinspires.org/robotics/frc>

FIRST Robotics Competition (9th - 12th Grade):

<https://www.firstinspires.org/robotics/frc>



AP CSP TEACHER & STUDENT DAY

The #CSforAR Team is excited to offer 2 upcoming AP CSP Virtual Events, each with a separate focus.

November 15: AP CSP Teacher Day is a 2-hour training session. During this training, teachers will review testing requirements for AP CSP and discuss the digital packets that were provided (it's not too late to request packets). Three session options are available: 9 am, 12 pm, and 3 pm. Attendance to this training is not required in preparation for Student Day, but is highly recommended.

November 16: AP CSP Student Day is a 5-hour drop-in window, from 9 am to 2 pm, when the CS Specialists will be available to answer questions from both teachers and students in the CS Cafe at <http://bit.ly/ARCSCoffee>. Please note: there is **no** formal event this day. Students and teachers are invited to drop in when they need assistance.

To assist teachers, the #CSforAR Team has put together an AP CSP Digital Packet. The packet includes a digital interactive notebook and prep material for the performance task. Digital Packets will be sent out by email. Request your digital packet and RSVP for the event here: <https://bit.ly/2021APCSPVirtualEvent>

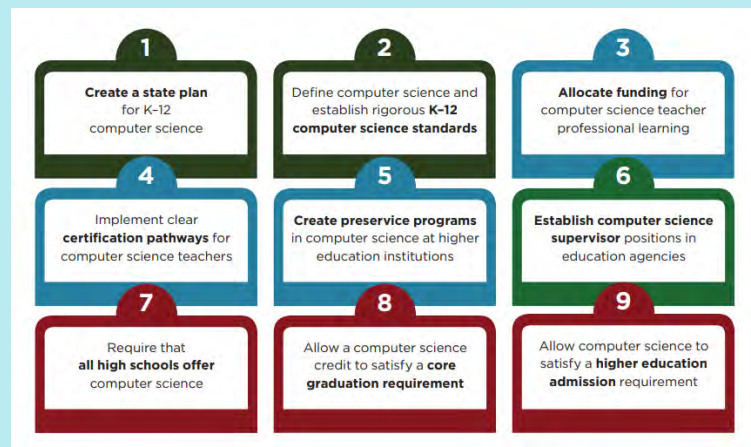
For additional assistance, please reach out any of the statewide specialists at <https://csforar.info/specialists>

2021 STATE OF COMPUTER SCIENCE EDUCATION

A SPECIAL REPORT FROM CODE.ORG

Code.org has just released its annual report on the development of CS education. This 116-page report provides a review at both national and state-level growth over the past year. The report also includes updated information on participation and access by demographic groups and a review of each state, including its employment of the 9 state policies Code.org deems necessary to make CS education a fundamental part of state education system. The report is available for download at

https://advocacy.code.org/2021_state_of_cs.pdf.



2021 State of Computer Science Education

Accelerating Action Through Advocacy



C O
D E Advocacy
Coalition

CSTA

ECEP Expanding
Computing
Education
Pathways

2021 STATE OF COMPUTER SCIENCE EDUCATION

A SPECIAL REPORT FROM CODE.ORG

Arkansas's individual report can be found here: https://advocacy.code.org/state_handouts/Arkansas.pdf

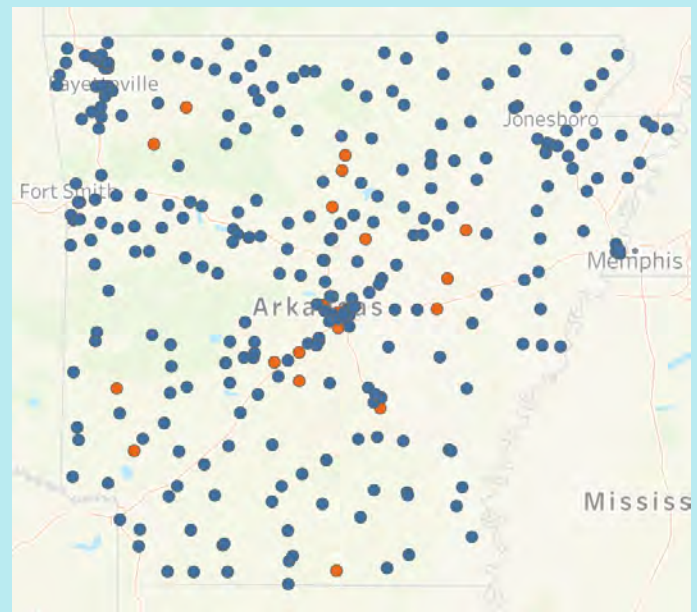
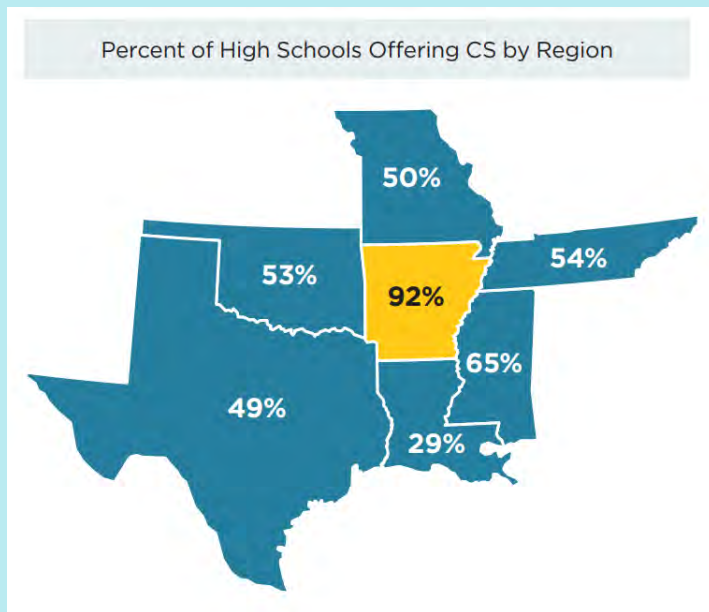
Here are some highlights of the Arkansas report:

Top Left: Percentage of High Schools offering CS by state.

Top Right: High schools that offer (navy) and high schools that do not offer (orange) CS.

Middle: Summary of foundational CS course offerings in the state.

Bottom: Participation demographics of populations and enrollment by these populations in a foundational CS course.



State data is from school year:
Note some states lag in data collection

2020-21

92%

of HS offer a foundational
CS course

283

HS offer a foundational CS
course

94%

of districts offer a
foundational CS course

97%

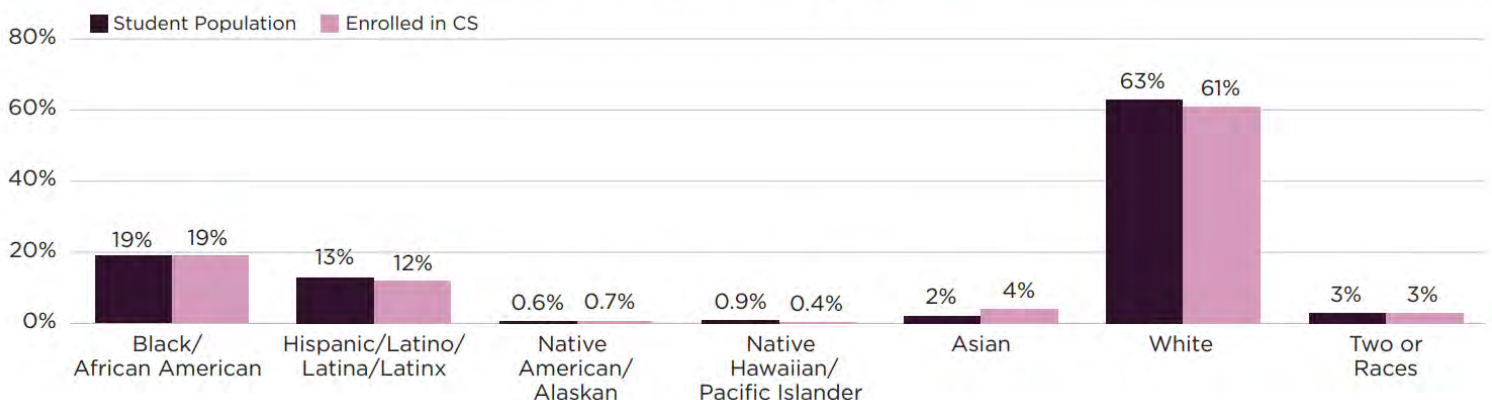
of students attend a HS that
offers a foundational CS course

100%

of schools with HS grade bands
reported data

Participation in Foundational High School Computer Science Courses by Demographic

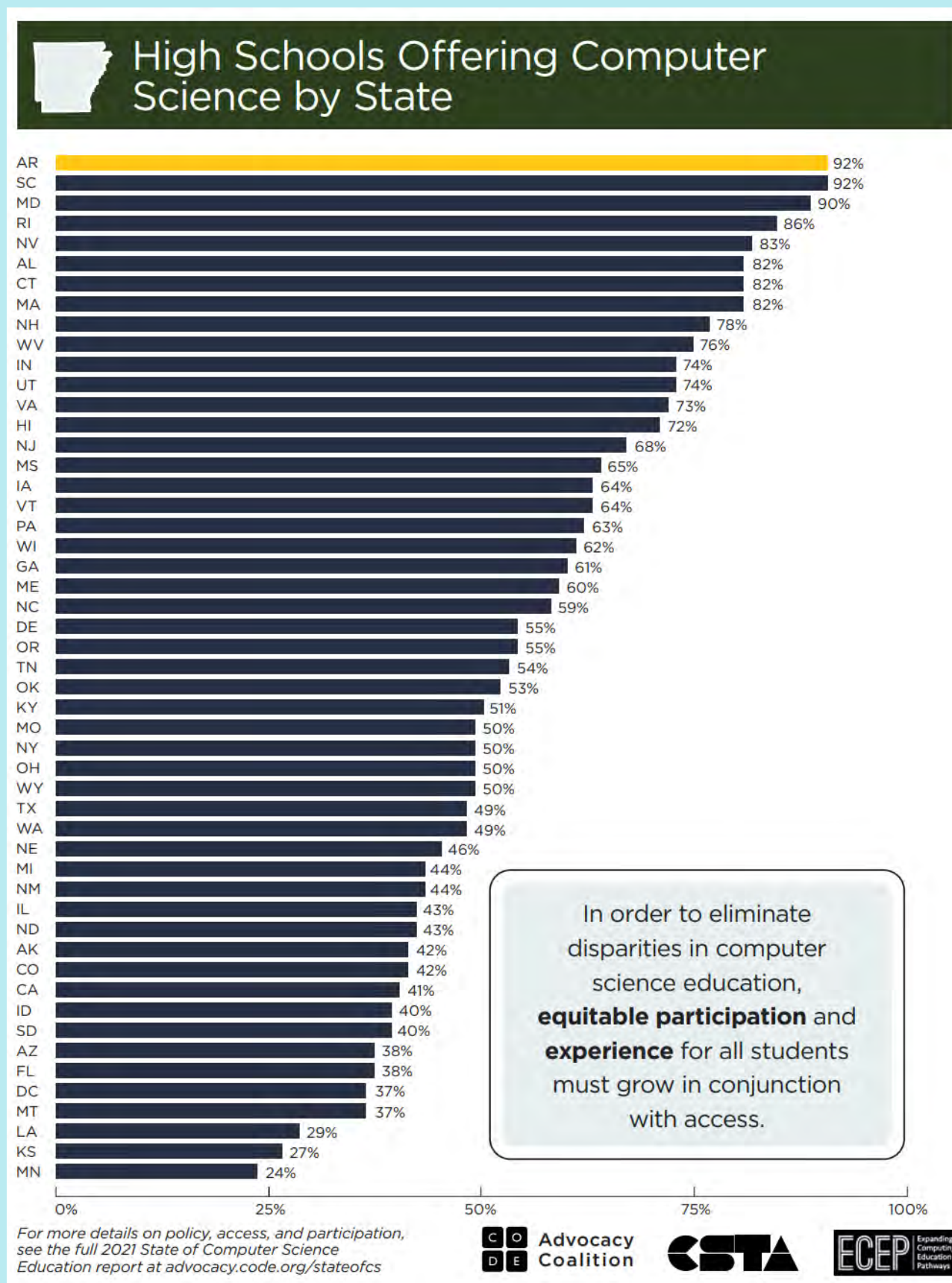
Computer Science Enrollment by Race/Ethnicity



2021 STATE OF COMPUTER SCIENCE EDUCATION

A SPECIAL REPORT FROM CODE.ORG

Arkansas is still leading the nation in computer science with the percentage of high schools offering computer science! If you would like to take a closer look at the data surrounding computer science in Arkansas, see <https://advocacy.code.org/stateofcs>



2021 STATE OF COMPUTER SCIENCE EDUCATION

A SPECIAL REPORT FROM CODE.ORG

Take a moment to search your county, district, and other local districts in your area to see what access they have to computer science at <https://code.org/yourschool/accessreport>. Accelerating access to computer science is so important, and we are striving to make sure our students obtain the necessary skill set required for the digital age we are living in. Still don't feel comfortable with your district plan? Reach out to the CSforAR team at csforar@ade.arkansas.gov, we would love to help.

Computer Science Access Report 2021

Data is based on the Access Report and includes all public and public charter schools with at least one high school grade (e.g., 9–12). Schools must offer at least one foundational computer science (CS) course to be counted as offering CS. Refer to resources linked below for more details

Select filters to change charts below

Select State First

(All) ▼

County Name

(All) ▼

Select Congressional District

(All) ▼

Select State Upper Chamber

(All) ▼

Select State Lower Chamber

(All) ▼

Select School District Name(s)

(All) ▼

Select School(s)

(All) ▼

State data is from school year:

Note some states lag in data collection

2020-21

51%

of HS offer a foundational
CS course

13,504

HS offer a foundational CS
course

61%

of districts offer a
foundational CS course

78%

of students attend a HS that
offers a foundational CS course

100%

of schools with HS grade band
reported data

Schools with HS grade bands that offer foundational computer science courses



IMPORTANT LINKS FOR CSEDWEEK

Looking for some ideas on what to do for CSEdWeek? Have you thought about hosting an Hour of Code event? Code.org has some great resources, but if you have done that for several years and are wanting to branch out, there are several other resources you can use to plan your own event! We have a planning document that can be used to help you make sure to plan all the parts as well as some vendors who offer other options!

It's also a great time to introduce students to famous computer scientists or have them work on a project for your school and community. What about inviting industry experts to visit your class or better yet, take your students to meet them on a field trip?



Why not all of the above? Plan something special each day, or better yet get student buy-in and ask them what they would love to hear more about.

We also have some great promotional videos that would be excellent to use:
<http://bit.ly/CSFORARYT>

If you can't decide, or need more grade-appropriate material that you didn't see linked here, reach out to your statewide specialist and let them help you make a plan! Not sure who is closest to you? Email our team at csforar@ade.arkansas.gov

LEARNING BLADE CORNER

Throughout the world, there are more high-demand STEM jobs available than there are people filling them. Over the years, many national and local agencies have developed initiatives to support closing this gap. Learning Blade supports these initiatives by working to expose students to STEM careers earlier. With more than 400 interactive online lessons showcasing various STEM/CS/CTE careers and technologies, Learning Blade allows students to be more aware of possible careers and helps start them on the STEM path sooner.

In honor of National STEM/STEAM day on November 8th, Learning Blade reminds everyone to continue to share the world of STEM with their students, to help build the future STEM workforce.

If you have not signed up for your free AR Learning Blade License, please fill out the form at www.LearningBlade.com/AR.

To learn more about Learning Blade or schedule a demo/training please email us at info@learningblade.com

NATIONAL STEM/STEAM DAY

Do you need some additional inspiration on how to help your kids become innovators and embrace STEM/STEAM Day?

Think of a fall-related project that helps explore their world using science, like collecting leaves and finding out why they change colors. For technology, have them code a game where an athlete character has to collect all the sports equipment or a character has to make a pumpkin pie from scratch.

There are tons of art projects where they can carve pumpkins, create sidewalk murals, or animate a work of art. For math, they could model the temperatures of the days and nights to predict the chances for snow this upcoming holiday season.

Find out who and what they are interested in and make it a learning adventure! This is a great time of year to engage and invite students to explore! Let's use this season as an opportunity to excite one another about the world around us and all we have to learn.



TECHNOLOGY STUDENT ASSOCIATION UPDATES



Pictured left to right: Secretary Lauren Rathbun, Greenwood; Treasurer Sydney Atha, Alma; President Anna Capps, Star City; Reporter Evan Hewitt, Alma; Vice President Russell Rathbun, Greenwood; Sergeant-at-Arms Isaac Meyers, Greenwood

TSA FALL CONFERENCE

More than 150 people from 11 schools attended the Arkansas TSA Fall Leadership Conference at Camp Couchdale near Hot Springs. This event was planned and executed by the Arkansas TSA State Officers.



YEAR-1 CS COURSES

Good news! Students taking a Year-1 CS course can now count it for ANY Year-1 course in a CS Program of Study! That gives students a chance to change their CS focus once they have been exposed to more areas of computer science!



UPCOMING CS TRAINING

bit.ly/CSforARPD

#CSFORAR COFFEE CAFE

bit.ly/ARCSCoffee

CONTACT US

Four Capitol Mall
Little Rock, AR 72201

CSforAR@ade.arkansas.gov



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